

HACHLER, E.

HACHLER, E. Soviet ornithology in the service of the people. p. 113.

No. 1/4, 1953
SBORNIK. RADA C: SPISY FAKULTY LESNICKE
AGRICULTURE
Brno, Czechoslovakia

So: East European Accessions, Vol. 5, no.5, May 1956

HACHEWSKI, W

Journal of the Iron and Steel Institute
Vol. 176
Apr. 1954
Properties and Tests

3
Plaws Occurring in the Treads of Railway Wagon and Locomotive Wheels. W. Hachowski and J. Goczał. (*Prace Instytutu Ministerstwa Hutnictwa*, 1953, 6, (4), 173-186). [In Polish]. Plaws in the form of surface cracks parallel and perpendicular to the wheel axis have been observed in the treads of railway wagon wheels. The influence of heat-treatment and hydrogen content of the steel on the formation of these cracks was examined. The following recommendations are made after investigations: (1) Heats for the production of railway wheel tyres should be correctly deoxidized. (2) Tyres should be made from large ingots of appropriate cross-sectional area, forged first perpendicular, then parallel to, the axis, and then rolled. (3) After rolling, the tyre should be slowly cooled in the temperature range 600-100° C. (in the furnace). (4) The heat-treatment should be (a) heat for hardening to 820° C. then cool slowly to about 30° C. above A_{c1} ; (b) hold at that temperature to ensure even temperature through the whole cross-section; (c) quench the tyre for 2 to 3 min. in water at 35-50° C.; (d) transfer of the tyre quickly from quenching bath into annealing furnace, the temperature of which should not be lower than 300° C.; (e) anneal at 600-650° C. for 2 hr. and then cool in air.—v. o.

CZECHOSLOVAKIA

ITA, V.; HACH, V.; KAKAC, B.; KOLINSKY, J.

Leciva, Dolni Mocholupy and Research Institute for
Pharmacy and Biochemistry - (for all).

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 11, November 1965, pp 3767-3771.

"Synthesis of (+)-4-methyllobeline."

(4)

HA-CH, V., KVIKA, V.

Data on the properties of (1-methyl)retropropylamine
iodine. Test. 100. 100. 100. 100. 100.

1. 100. 100. 100.

HACH, V.; KVITA, V.; KOLINSKY, J.

Active antimicrobial derivatives of p-dichloroacetamidobenzoic acid. Coll Cz Chem 28 no.4:855-862 Ap '63. †

1. Leciva, Dolni Měcholupy bei Prag.

HACH, V.

An attempt at a modified synthesis of chloramphenicol. Cesk.
farm. 12 no. 10:512-514 D'63.

1. Leciva, n.p., Dolni Mecholupy u Prahy.

*

HACH, V; KVITA, V; KOLÍNSKÝ, J.

Czechoslovakia

Lěčiva, Dolní Měcholupy, near Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 4, 1963, pp 855-861

"Antimicrobe Active Derivates of p-Dichloroacetamido-
benzoic Acid."

3

HACH, V.; KVITA, V.; KOLINSKY, J.; MACEK, K.

CSBR

no academic degrees indicated

Drugs (Leciva), Dolni Mecholupy (for Hach, Kvita, Kolinsky). Research Institute
for Pharmacy and Biochemistry, Prague (for Macek)

Prague, Collection of Czechoslovak Chemical Communications, No 1, 1963,
pp 266-271

"Contribution to Bromization in the Acetophenon Series"

(4)

NEDBAL, J.; HACH, V.; LIBOSVAR, J.

Protracted effect of a polyethylene foil on the melting point of organic compounds. Cesk. farm. 11 no.6:320-322 J1 '62.

1. Leciva, n.p., Dolni Mecholupy u Prahy.
(POLYETHYLENES) (CHEMISTRY PHARMACEUTICAL)

LIBOSVAR, J.; NEDBAL, J.; HACH, V.

Use of chromatography on a thin layer of aluminum oxide in controlling the classical synthesis of chloramphenicol. Cesk. farm. 11 no.2: 73-76 F '62.

1. Leciva, n.p., Dolni Mecholupy u Prahy.
(CHLORAMPHENICOL chem) (CHROMATOGRAPHY)

TRINER, S.; HACH, V.

Sulfamethoxypyridazine (Spofadazin). Cesk. farm. 10 no.9:482-486
'61.

(SULFAMETHOXYPYRIDAZINE)

HACH, V.

Local anesthetics. XI. Simple chroman derivatives. In German. Coll.
Cz.Chem. 24 no.9:3136-3140 S '59. (EEAI 9:5)

1. Leciva Praha, Werk 01, Dolni Měcholupy u Prahy.
(LOCAL ANESTHESIA) (CHROMAN)

BACH, V.; KVIT, V.

Active Control Systems. V. 1. (Part 1 of 2). (1970).
Moscow, U.S.S.R. (3 vols. in 1-2) 1970.

1. Service manual... (1970).

COUNTRY: : Czechoslovakia
CATEGORY :

G-2

ABS. JOUR. : RZhKhim., No. 5 1960, No.

17904

AUTHOR :
INSTR. :
TITLE :

ORIG. PUB. :

ABSTRACT : For Communication XLIV see RZhKhim, 1959, No 16,
57137.

A. Enr

CARD: 7/7

COUNTRY : Czechoslovakia

G-2

CATEGORY :

JIS, JOUR. : RZKhim., No. 5 1960 No.

12904

AUTHOR :

INST. :

TITLE :

CHL. PUB. :

ABSTRACT : is extracted with 10% HCl, and the extract is made alkaline with NaOH and extracted with ether to give Id, yield 3.5 gms, mp 106° (from alc). picrate mp 204° (from alc), hydrochloride mp 187° (from alc). Using a procedure similar to that applied for Id, 2.4 gms of crude Ic are obtained from 5.2 gms Ic and 6 ml piperidine in 50 ml benzene; the crude product is converted directly to the picrate, mp 230° (from alc). All mp's were determined by the Kofler method and corrected.

6/7

177

COUNTRY : Czechoslovakia
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 5 1960, No. 17904
 AUTHOR :
 CHIC. PUB. :
 ABSTRACT : xylene is refluxed for 5 hrs to give Ia, yield 6.5 gms, bp 195-198°/0.5 mm, picrate mp 180° (from alc), hydrobromide mp 166°. 10 gms I are refluxed (12 hrs) with 16.7 gms ClH_2COCl in 60 ml C_6H_6 (or with 7.5 gms $\text{ClH}_2\text{CCl}_2\text{COCl}$ in 70 ml C_6H_6) to give Ib, yield 91%, mp 143° (from alc), or Ic, yield 52%, mp 128-129° (from alc). A solution of 1.0 gms Ic and 20 ml diethylamine in 75 ml benzene is refluxed for 10 hrs, the diethylamine hydrochloride which is precipitated is separated, the filtrate

PAGE: 1/7

COUNTRY : Czechoslovakia
 CATEGORY :

G-2

ABS. JOUR. : RZKhim., No. 5 1960 No.

17904

AUTHOR :
 INST. :
 TITLE :

ORIG. PUB. :

ABSTRACT : sulfide-2-carboxylic acid (IV), yield 97%, mp 119° (from alc), diacetyl derivative mp 184° (from alc). Attempts to effect the thermal cyclization of IV to III gave only an amorphous product of polymeric nature. The reduction of 2.7 gms III (0.7 gm LiAlH₄, 100 ml abs ether, 16-hr reflux, hydrolysis with 20 ml 40% NaOH) gives I, yield 88%, mp 127° (from alc), hydrochloride derivative mp 179° (from alc). A mixture of 10 gms I, 7.5 gms 3-dimethylaminopropyl chloride and 2 gms NaNH₂ in 100 ml

CARD: 4/7

176

COUNTRY:	1	Czechoslovakia	0-2
CATEGORY	1		
ABS. JOUR.	1	RZKhim., No. 5 1960, No.	17904
AUTHOR	1		
INSTR.	1		
TITLE	1		
ORIG. PUB.	1		
ABSTRACT	1	in alcohol (150 mg [sic]) at about 20° and atmospheric pressure gives the methyl ester of 2'-amino-4'-chlorodiphenylsulfide-2-carboxylic acid (II), yield 70%, mp 137° (from CH ₃ OH), acetyl derivative mp 151° (from alc). II on heating (220-230°, 8 hrs) cyclizes to give the lactam of 2'-amino-4'-chlorodiphenylsulfide-2-carboxylic acid (III), yield 24.2 gms, mp 290° (from CH ₃ COCH). Reduction of the methyl ester of 2', 4'-dinitrophenylsulfide-2-carboxylic acid analogously to II gives the methyl ester of 2', 4'-diaminodiphenyl-	
CARD:	3/7		

COUNTRY : Czechoslovakia
 COUNTRY :
 ANG. JOUR. : RZhim., No. 5 1960, No.
 AUTH. :
 JMC. :
 TITLE :

0-2

19604

ORIG. PUB. :

ABSTRACT : dichloronitrobenzene in 50 ml CH₃OH to give the methyl ester of 2'-nitro-4'-chlorodiphenylsulfide-2-carboxylic acid (yield 64%, mp 81° (from CH₃OH), which on reduction (15.1 gms) over Raney Ni (2 gms)



2/6

196

COUNTRY : Czechoslovakia
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 5 1960, No. 17904
 AUTHOR : Protiva, M. and Bach, V.
 TITLE : Not given
 ABSTRACT : Antihistamine Compounds. XIV. Homophenothiazine
 Analogs of Chlorpromazine and Some Related Com-
 pounds.
 ORIG. PUB. : Collection Czechoslov Chem Commun, 24, No 1, 207-
 211 (1959)
 ABSTRACT : The authors report the synthesis of 2-chlorohemo-
 phenothiazine (II, R = H) and of a number of its
 derivatives (Ia-e, where Ra = (CH₃)₂N(CH₃)₂, Rb =
 COCH₃, Cl, Rc = COCH₃, CE, Cl, Rd = COCH₃, N(C₂H₅)₂, and
 Re = COCH₃, N(CH₃)₂) possessing antihistamine, lo-
 cal anesthetic, and mildly hyperthermic actions.
 The Na salt of the methyl ester of thiosalicylic
 acid (obtained from 16.5 gms of the ester and 2.3
 gms Na in 150 mg [sic] CH₃OH) is refluxed for 6 hrs
 with the addition of a solution of 11.2 gms 2,5-

CHES: 1/6

Country	: Czechoslovakia	G-2
Category	:	
Abs. Jour	:	45828
Author	: Mach, V. and Protiva, M.	
Institut.	: Not given	
Title	: Antihistamine Compounds. XIII. Derivatives of 1-Aza-4-thia-2,3-dihydro-1,4-benzocycloheptadiene (Homophenothiazine)	
Orig. Pub.	: Collection Czechoslov Chem Commun, 23, No 10, 1941-1946 (1958); Chem Abstr. 51, 1959 (1957)	
Abstract	: See RZhRhim, No 23, 1958, 77702.	

Card: 1/1

Author: Tikhonov, V. I.
 Title: Synthesis of Organic Compounds. Chemistry
 Journal: Ref. Zh. Khim., No. 10, 1978, No. 10, 1000
 Subject: Chem., V.; Organic, I.
 Abstract: Synthesis.
 Notes: Research on Synthesis of Organic Compounds.
 III. Synthesis of Hydrocarbons, Alkyls.
 Author: Tikhonov, V. I.; Zhuravskiy, I. I.
 Title: Synthesis of Organic Compounds. Chemistry
 Journal: Ref. Zh. Khim., No. 10, 1978, No. 10, 1000-1001.
 Subject: Chem., V.; Organic, I.
 Abstract: Synthesis.
 Notes: Ref. Zh. Khim., No. 10, 1978, 1000.

Hach, V

M. Borovicka and V. Hach, "Naturstoffe als Arzneimittel Fortschritte im Jahre 1956," Die Pharmazie (Berlin), 13/2, February 1958, pp. 65-72.

Received on 26 June 1957.

Dr. M. Borovicka's address is cited as Research Institute for Pharmacy and Biochemistry, Prag XII, Kourimska 17. The authors express their thanks to their colleagues, Dr. J. O. Jilek and J. Pomykacek, for their assistance in the preparation of this paper.

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

double bond was not established in the case of
hexenyl compounds VII, VIII and XI to XIV; it is
assumed by analogy with bibliographical indications
that they are Δ^1 -compounds. The melting points
were determined in a Kofler block, and those denoted
"not adjusted" were determined with a capillary.

Card : 11/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

melt. p. 177[°] (from alc. + eth.). Hexahydrohordenine (XVIII) was produced by hydrogenating XVII on Pt from PtO₂ in CH₃COOH, yield 58%, boil. p. 132 to 134[°]/10 mm; 2-(cyclohexylethyl)-dimethyl-amine was separated as a by-product of hydrogenation, yield 19%, boil. p. 82 to 84[°]/10 mm; picrate, melt. p. 154[°] (not adjusted, from alc.). 3,4,5-trimethoxybenzoate of XVIII (XIX), semisolid if impure, was synthesized of XVIII and 3,4,5-trimethoxybenzoylchloride by seasoning (about 12 hours) in C₆H₆; hydrochloride, melt. p. 214[°] (not adjusted, from alc. + eth.). V and X show a hypotensive activity same as their aromatic analogues described in the report I (see RZhKhim, 1958, 61101). The substance XIX is not active. The position of the

Card : 10/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167

by the oxidation of the above mentioned mixture by seasoning it 3 days in $\text{Na}_2\text{Cr}_2\text{O}_7$ solution in dilute H_2SO_4 , yield 28%, melt. p. 103 to 106° (from petr. eth. + ethylacetate); semicarbazone, melt. p. 185° (from water); ethyl ether 2,4-dinitro-phenylhydrazone, melt. p. 150 to 152° (from alc.). 2-(4-methoxyphenyl)-ethylamine was methylated by 8 hours' heating with 98%-ual HCOOH and 37%-ual CH_3O to hordenine methyl ester (XVI), yield 37%, boil. p. 122 to 125°/10 mm, hydrochloride, melt. p. 173 to 174° (not adjusted). Hordenine (XVII) was prepared of XVI by Buck's method (Buck J.S. and others, J. Amer. Chem. Soc., 1938, 60, 1789), yield 74%, melt. p. 117° (not adjusted); hydrochloride,

Card : 9/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

β -methoxyadipinic acid in the mixture toluene-alcohol in the presence of H_2SO_4 at a simultaneous azeotropic removal of water leads to ethyl ester of β -methoxyadipinic acid, yield 80%, boil. p. 118 to 120°/2.5 mm, $n_D^{20} = 1.4336$. By the reduction of EE of 4-oxyphenylacetic acid in alcohol on Raney's nickel in the presence of C_2H_5ONa under 125 atm and at 150 to 160°, EE of 4-oxy-cyclohexylacetic acid was obtained, yield 61%, boil. p. 115 to 116°/0.4 mm, which was saponified by 2 hour boiling with NaOH solution in aqueous alcohol to a mixture of stereoisomeric 4-oxy-cyclohexylacetic acids, yield 94%, melt. p. 110 to 120° (raw). 4-oxy-cyclohexylacetic acid was prepared

Card : 8/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

solution with dilute HCl, and evaporation of the acid solution in vacuo, melt. p. 231 to 232° (from iso-C₄H₉OH + alc.); picrate, melt. p. 190° (from alc.). When the reaction mixture had been decomposed with water after the reduction of XI and the ether layer, dried with the application of K₂CO₃, had been distilled, a base (XV), boil. p. 104 to 106/10mm, was obtained, the hydrochloride of which is of the same composition as XIV, and the melt. p. is 162° (from acetone + alc. + eth.); picrate, melt. p. 148 to 149° (from alc.). It is surmised that a change of the position of the double bond takes place at the distillation of the base of XIV and that XV is 2-(4-methoxycyclohexylidene)-ethylamine. The esterification of the

Card : 7/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

above mentioned acid with a yield of 94% by 3 hours of seasoning and 1 hour of boiling with SOCl_2 was converted into tryptamide of 4-methoxycyclohexylacetic acid similarly to II by reducing with III, yield 56%, melt. p. 102° (from benzene); that tryptamide was cyclized similarly to IV to the corresponding dihydro base, by the reduction of which with Na in alcohol 1-(4-methoxy-cyclohexyl)-methyl-1,2,3,4-tetrahydronorharman (X) was prepared, yield 82%; hydrochloride, melt. p. 245 to 247° (dissociates, from aq. alc.); methanesulfonate, melt. p. 254 to 255° (from aq. alc.). 4-methoxycyclohexenylacetonitril (XI), boil. p. 118 to $121^\circ/10$ mm, was prepared of VII and cyanacetic acid in C_6H_6 in the presence

Card : 5/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

KOH solution in alcohol, yield 85%, boil. p. 150 to 152°/2 mm, melt. p. 27 to 30°. Hydrogenation of VII on PtO₂ in CH₃COOH resulted in EE of 4-methoxycyclohexylacetic acid (IX), boil. p. 120 to 122°/20 mm. By hydrogenation of the aqueous solution of Na salt of VIII on Raney's nickel under 105 atm. at 80 to 90°, or by 12 hour boiling of IX with KOH solution in alcohol, cis-(?) -4-methoxycyclohexylacetic acid was produced, yield 80%, boil. p. 151 to 152°/3 mm, melt. p. 19 to 22°; S-benzylisothiouronic salt, melt. p. 145 to 146° (from alc.). 4-methoxycyclohexylacetyl chloride, boil. p. 108 to 111°/10 mm, synthesized of the

Card : 4/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

tion by NH_4OH ; that base was reduced with 12 g of Na in 120 ml of alcohol to 1-cyclohexylmethyl-1,2,3,4-tetrahydronorharman (V) (yield 3.6 g); hydrochloride, melt. p. 245 to 246° (from alc.); metasulfonate, melt. p. 262 to 265° (from aqu. alc.). Ethyl ester (EE) of 1-oxy-4-methoxycyclohexylacetic acid was synthesized of 4-methoxycyclohexanone (VI) and $\text{CH}_3\text{Br}-\text{COOC}_2\text{H}_5$ in C_6H_6 by the reaction of Reformatskiy, yield 64%, boil. p. 110 to 111°/1.6 mm; it produced the EE of 4-methoxycyclohexenylacetic acid (VII) after 4 hours of action of SOCl_2 in pyridine in an ice bath, boil. p. 120°/14 mm. 4-methoxycyclohexenylacetic acid (VIII) was prepared by 12 hour boiling of VII with

Card : 3/11

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

action of SOCl_2 , yield 92%, boil. p. 85 to 88°/20 mm. The tryptamine salt of I was synthesized of tryptamine (III) and I, yield 88%, melt. p. 181 to 182° (from alc.), and converted into tryptamid of I (IV) by heating it 45 min. to 190 to 200°, little yield, melt. p. 79 to 81° (from benzene). IV was obtained with a considerably greater yield (85%) of III and II by cooling them in C_6H_6 in the presence of 4%-ual aqueous NaOH solution. A solid impure dihydro base was prepared by boiling 3.9 g of IV with 10 ml of POCl_3 in 100 ml of C_6H_6 in the duration of 2 hours, evaporating in vacuo, dissolution in 60 ml of 75%-ual CH_3COOH , and precipita-

Card : 2/11

HACH VLADIMIR

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74167.

Author : Miroslav Protiva, Jiri O. Jilek. Vladimir Hach,
Edita Adlerova, Vladimir Mychajlyszyn.

Inst : American Chemical Society.

Title : Synthetic Models of Blood Pressure Depressing Alkaloids.
II. Simple Models of Reserpine With Cyclohexane Ring.

Orig Pub: Chem. listy, 1957, 51, No 11, 2109-2117.

Abstract: Cyclohexylacetic acid (I) was prepared by the reduction of a solution of sodium cyclohexylideneacetate on Raney nickel under 110 atm. at 100°, yield 86%, boil p. 123 to 125°/5 mm; it was converted into cyclohexylacetylchloride (II) by the

Card : 1/11

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

ture $\sim 20^\circ$) there is obtained, with a low yield, 2-carbethoxy-6-acetoxycyclohexanone, boiling point $80-83^\circ/0.35$ mm. Analogously from 2-methoxycyclohexanone is synthesized 2-carbethoxy-6-methoxycyclohexanone, boiling point $125-130^\circ/10$ mm. Report XV, see RZhKhim, 1958, 54013.

Card : 8/8

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

of POCl_3 in CCl_4 was transformed into 5-methoxytetralone (XII), yield 52%, melting point $88-89^\circ$. The action of SO_2Cl_2 on XII (10 minutes, at temperature of 20°) leads to 2,2-dichlor-5-methoxytetralone, melting point 100° (from petroleum ether) and the processing of XII Br_2 into CH_3COOH (one hour at temperature 20°) leads to 2-brom-5-methoxytetralone, melting point 93° (from petroleum ether). The action of SO_2Cl_2 on decalindione-1.5 leads to dichloride, which is 2,2-dichlordecalindione-1.5 or 2,6-dichlordecalindione-1.5, yield 37%, melting point $153-154^\circ$ (from bz1. petroleum ether). By the interaction of 2-acetoxycyclohexanone with diethyloxalate in C_6H_6 in the presence of dry $\text{C}_2\text{H}_5\text{ONa}$ (7 hours, at a tempera-

Card : 7/8

13

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

is synthesized, which with malonic ether in C_5H_5N in the presence of piperidine give o-isopropoxycinnamic acid [yield 64%, melting point 125° (from 30% alcohol)] reduced by an amalgam of Na to VIII, yield 78%, boiling point 135-140°/0.3 mm, melting point 51°/(from water). The following transformations were also realized. The reduction of VII $LiAlH_4$ leads to 3-(o-methoxyphenyl)-propanol (yield 60%, boiling point 117-120°/0.5 mm), which with PBr_3 gives 3-(o-methoxyphenyl)-propylbromide, yield 58%, boiling point 85-89°/0.5 mm; the latter with KCN forms 3-(o-methoxyphenyl)-butyronitrile (yield 74%, boiling point 145-155°/12-14 mm), converted by saponification into 3-(o-methoxyphenyl)-butyric acid (yield 73%, boiling point 145-147°/0.3 mm, melting point 40°), which during cyclization under the action

Card : 6/8

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

[yield 71.5%, melting point 74° (from alcohol)], which during hydrogenation over Pt (from PtO_2) in alcohol ethyl ether forms α -cyan- β -(*o*-methoxyphenyl)-propionic acid (X), and during boiling (16 hours) with aqueous $\text{CH}_3\text{COOH-H}_2\text{SO}_4$ gives *o*-methoxycinnamic acid (XI), yield 51%, melting point 182° (from water). X is obtained also with 90% yield from $\text{O-CH}_3\text{OC}_6\text{H}_4\text{CHO}$ and malonic ether in $\text{C}_6\text{H}_5\text{N}$ in the presence of piperidine. Boiling of X with aqueous H_2SO_4 (8 hours) or reduction of XI by an amalgam of Na lead to VII, yield 72.5 and 80%, melting point $90-91^{\circ}$ (from water). For obtaining VIII by boiling (30 hours) of salicyl aldehyde with iso- $\text{C}_2\text{H}_5\text{Br}$ in the presence of $\text{C}_2\text{H}_5\text{ONa}$ and KI, *o*-isopropoxy-benzaldehyde (yield 27%, boiling point $72-73^{\circ}/0.3 \text{ mm}$)

Card : 5/8

12

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

a method described (Janisch A., Ber., 1923, 56, 2448), yield 24%; c) by nitrating of the hydrocinnamic acid by a method described (Konek F.V., Pacsu E., Ber., 1918, 51, 855) with a subsequent division of II and n-nitrohydrocinnamic acid (IX), melting point 164° . Chlorohydrid II during condensation with C_6H_6 in the presence of $AlCl_3$ (4 hour boiling) forms β -(o-nitrophenyl)-propiophenone, yield 40%, melting point $67-68^{\circ}$ (from alcohol); analogous condensation of chlorohydrid of IX leads to β -(n-nitrophenyl)-propiophenone, yield 76%, melting point $92-93^{\circ}$ (from alcohol). VII is obtained in the following manner. Condensation of $o-CH_3OC_6H_4CHO$ with $CNCH_2COOC_2H_5$ in alcohol in the presence of piperidine leads to ethyl ether of α -cyan-o-methoxycinnamic acid

Card : 4/8

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

a. water bath) leads into hydrindandiol-1.4 (yield 25%, boiling point 122-126°/0.5 mm), which during oxidation by the chrome mixture in aqueous CH_3COOH transfers in I, yield 61%; Big-2,4-dinitrophenylhydrazine, melting point 220-223° (from bz1-petroleum ether). The cyclization of o-methoxyhydrocinnamic acid (VII) and o-isopropoxyhydrocinnamic acid (VIII) (under the action of polyphosphoric acid, P_2O_5 in bz1, H_2SO_4 or PCl_5 in CCl_4 or xylene) in 4-methoxyindanone and accordingly in 4-isopropoxyindanone from which it would be possible to obtain I, was not successful. II is synthesized by three ways: a) by boiling (24 hours) of β -(o-nitrophenyl)-propionic acid, which after boiling with the solution H_2SO_4 (1 hour) was transferred into II, 40% yield (unpurified); b) from o- $\text{NO}_2\text{C}_6\text{H}_4\text{CH}_2\text{Cl}$ and malonic acid by

Card : 3/8

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CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

95%, melting point 123-124° (from bz1.), monodiazotization and subsequent heating (15 minutes at 40°) lead to 4-oxyindanone (IV), yield 83%, melting point 240° (from aqueous alcohol); oxime (V), melting point 186° (from aqueous alcohol) IV is also synthesized from dehydrocoumarin by a method described (RZhKhim, 1955, 37283), yield 42%. During hydrogenation of V over Pt (from PtO₂) in CH₃COOH, there is formed 1-amino-cis-hydrindan [yield 21.3%, boiling point 60-62°/0.5 mm; picrate, melting point 182-184° (from alcohol); N-benzoyl derivative, melting point 182-183° (from 50% alcohol)] and 1-amino-cis(?) -hydrindanol (VI) [yield 32%, boiling point 122-125°/0.5 mm, melting point 75-77° (from petroleum ether)]. Monodiazotization of VI in 25% CH₃COOH and subsequent heating (2.5 hours in

Card : 2/8

HACH, VL.

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64393.

Author : Hach Vladimir, Protiva Miroslav

Inst :

Title : Synthetic Research in the Area of Estrogenic Hormones.
XVI. Synthesis of Hydrindandione - 1.4

Orig Pub: Chem. listy, 1957, 51, No 11, 2099-2108.

Abstract: Hydrindandione-1.4 (I) is synthesized from o-nitrohydrocinnamic acid (II) by the following manner. The cyclization of acid chloride II with the application of $AlCl_3$ in CS_2 leads to 4-nitroindanone (III), yield 62%, melting point 103° (from petroleum ether or alcohol): oxime, melting point 204° (from alcohol). During hydrogenation of III over PtO_2 or over skeleton Ni in alcohol, 4-amino-indanone is formed, yield in the latter case

Card : 1/8

10

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic G-2
Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77702.

Abstract: alc). Using a procedure similar to that used in the preparation of V, N-(2-piperidinoethyl)-IV (VI) is obtained from IV and $\text{ClCH}_2\text{CH}_2\text{NCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2$, bp $180^\circ/0.5\text{mm}$; acid salt of succinic acid mp $150-151^\circ$ (from alc); P mp 165° (from alc). Similarly IV and 1-dimethylamino-2-chloropropane give N-(2-dimethylaminopropyl)-IV, yield 68%, bp $165-170^\circ/0.5\text{mm}$; P mp 158° (from alc); IV and 1-dimethylamino-3-chloropropane give N-(3-dimethylaminopropyl)-IV, yield 67%, bp $169-173^\circ/0.5\text{mm}$; hydrobromide mp 157° (from ether-alc); P mp 135° (from alc). Heating of IV for 3 hrs with ClCH_2COCl in C_6H_6 at 80° gives N-(chloroacetyl)-IV (VII), yield 78%, mp 103° (from alc);

Card 3/4

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77702.

Abstract: at normal pressures gives the methyl ester of 2'-aminodiphenylsulfonic-2-carboxylic acid (II), yield 100%, mp 95-96° (from 75% alc); picrate (P) mp 167° (from alc). Heating II for 7 hrs at 200-220° gives the lactam of II (III), yield 86%, mp 239-242° (evap; from aqueous alc). The reduction of III by refluxing for 30 hrs with LiAlH₄ in ether gives 1-aza-4-thia-2,3:5,6-dibenzocycloheptadiene (homophenothiazine) (IV), mp 115° (from alc). Refluxing IV for 10 hrs with NaNH₂ and ClCH₂ CH₂ N(CH₃)₂ in xylene gives N-(2-dimethylaminoethyl)-IV (V), yield 5% bp 160-165°/0.5mm; hydrochloride mp 206° (from ether-alc); P mp 156° (from alc); iodomethylate (IM) mp 195° (from ether-

Card 2/4

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic G-2
Chemistry.

Abs Jour: Ref Zhur-Khimiya, 23, 1958, 77702.

Author : Hach, V. and Protiva, M.

Inst : Not given.

Title : Antihistamines. XLII. Synthesis of 1-aza-4-thia-2,3-5,6-dibenzocycloheptadiene (homophenothiazine).

Orig:Pub: Chem Listy, 51, No 10, 1909-1914 (1957) (in Czech).

Abstract: When the methyl ester of thiosalicylic acid is added to a solution of CH_3ONa in CH_3OH and the mixture is heated for 15 hrs with $\text{o-NO}_2\text{C}_6\text{H}_4\text{Cl}$ (50°), the methyl ester of 2'-nitrodiphenylsulfodicarboxylic-2 acid (I) is obtained, yield 55%, mp $92-93^\circ$. The reduction of a methanolic solution of I over Pt (from PtO_2) or over Raney nickel

Card 1/4

HOCH, V., and others.

"Local anesthetics. VII. Analogs of diethylaminoacetylacridates." In German.

p. 1287. (Sbornik Czechoslovakiskih khimicheskikh rabot, Vol. 27, No. 6, Dec. 1957, Praha, Czechoslovakia)

Chem. Abstr. 52:1287 (1958) (Czechoslovakia) (1958)
Chem. Abstr. 52:1287 (1958)

Monthly index of East European Accession (SERIAL) IC, Vol. 7, No. 8, August 1958

[illegible]

10

D. B. Hunter

HACH/V

Natural substances as medicinals - progress in the year
1958. M. Burovicki and V. Hach (Novosibirsk 2, Prague). *Med*
Pharmazie 13, 05-78 (1957). - A review with 288 references.
G. M. Hocking....

[illegible]

2/3

HAQCH, YLC D, M, IR

[illegible]

HACH-V.

Investigations of local anesthetics with protracted effects.
III. The effect of a simple quaternary salt on the duration of local anesthetics. V. Hach and Z. Horáková (Forschungsinst. Pharm. u. Biochem., Prague). *Experientia* 12, 112-14 (1956) (in German).—Addn. of simple quaternary salts such as $(Et_4N)^+Br^-$ and $[HOCH_2CH_2N(C_2H_5)_3]^+Br^-$ to solns. of procaine, xylocaine, cinchocaine, and tetracaine causes a prolongation of the time of complete infiltration anesthesia as indicated by the rabbit cornea test.

D. S. Farner

2

HAICH, VLADIMIR

[illegible]

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H-17
 Their Application. Medicinal Substances. Vitamins.
 Antibiotics.

Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 58407

melting point 152-156°; after recrystallization from absolute alcohol, 163-164°; base IV, melting point 54° (from petroleum ether). After two crystallizations 18 g (66%) of monochlorohydrate I is obtained by reduction of 30.1 g of IV with 0.3 PtO₂; melting point 165-169°, base, melting 47-48° (from benzol-petroleum ether). The salts of base IV are described: picrate, melting point 206°; oxalate, melting point 155°; succinate, melting point 123°; bromhydrate, melting point 149°; n-nitrobenzoate, melting point 133°. Salts of I: picrate, melting point 148°, dichlorohydrate, melting point 175°; monohydrate of dibromhydrate, melting point 200°.

Card 2/2

HACH, V.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H-17
 Their Application. Medicinal Substances. Vitamins.
 Antibiotics.

Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 58407

Author : Hach, V., Koppova, E.

Inst : -

Title : On the Question of the Chemical Properties of 2-Diethyl-
 laminoethylamid of n-aminobenzoic Acid.

Orig Pub : Ceskosl. farmac., 1956, 5, No 10, 582-583.

Abstract : The 2-diethylaminethylamid of n-aminobenzoic acid (I)
 is obtained by the reaction of n-nitrobenzol-chloride
 (II) with 2-diethylaminoethylamine (III). 24 g of III
 are dissolved (boiling point 143-149°) in 200 ml of
 dry C₆H₆ and, during cooling and blending, a solution
 is added of 37 g of II in 200 ml of C₆H₆. After 15
 hours at 20°, 54 g (90%) of monochlorohydrate 2-diethyl-
 laminoethyl amide of n-nitrobenzoic acid (IV) is extrac-
 ted;

Card 1/2

HORAKOVA, Z; HACH, V.; ROTH, Z.; MATOUSKOVA-SMOLKOVA, H.

Local anesthetic action and certain remote pharmacological properties of alkoxy derivative of xylocaine. Cesk. fysiол. 5 no.4:460-470 1956.

1. Vyzkumny ustav pro Farmacii a Biochemii, Praha.
(LIDOCAINE, related compounds,
alkoxy deriv., local anesth. & pharmacol. (Cz))

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic
Chemistry.

E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26841.

later it was decomposed with the solution of NaHCO_3 , the precipitate was suspended in ether and converted by HCl (gas) into chlorohydrate of IX, melting point $182-183^\circ$ (from alcohol-ether). Chlorohydrate of X, melting point $206-207^\circ$ (from alcohol-ether) was obtained from VI and VII. 3.1 g of chlorohydrate of VIII in 300 ml of alcohol was hydrogenated over 0.4 g of PtO_2 , alcohol was distilled off, the base was separated by soda solution and extracted by ether, XI was obtained, yield 90%, melting point $140-141^\circ$ (from alcohol-petroleum ether). XII was produced from IX in the same way, yield 75%, melting point $139-141^\circ$ (from alcohol-petroleum ether), and XIII from X, yield 60%,

Card 4/5

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic
Chemistry.

E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26841.

chlorohydrate of II and LiAlH_4 , yield 47%,
melting point $98-100^\circ$ (from petroleum ether).
When boiled with HBr (acid, 1 : 3), V splits
producing piperidine bromohydrate, melting point
 $230-232^\circ$ (from alcohol). Chlorohydrate of VI,
melting point 205° (from alcohol-ether) was re-
ceived from chlorohydrate of III similarly to
IV, yield 74%. The mixture of the solution of
IV (separated with soda from 5 g of chlorohydrate) in 75 ml of CHCl_3 and of the solution of
3 g of VII in 75 ml of CHCl_3 was distilled dry
in air, chlorohydrate of VIII, melting point
 $164-165^\circ$ (from alcohol-ether) was in the residue.
Solution of 4 g of V and 3 g of VII in 25 ml
of pyridine was heated (100° , 3 min.), 48 hours

Card 3/5

Card 1/5

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26841.

obtained from IV to VI at a low yield by the interaction with n-nitrobenzoylchloride (VII). VIII to X produced corresponding n-aminobenzoates (XI, XII and XIII) by hydrogenation over PtO_2 . IV, V and VI were obtained in the shape of one stereoisomer in all cases. In the duration of 20 min. 18 g of chlorohydrate of I was introduced into the suspension of 1.8 g of LiAlH_4 in 400 ml of absolute ether, the mixture was boiled 10 minutes, decomposed with 20 g of NaOH and 250 ml of water and extracted with ether; HCl (gas) was let through the dry distilled down ether extract and chlorohydrate of IV was received, yield 61%, melting point 202-203° (from alcohol). Similarly, V was received from

Card 2/5

Card 6/7

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26840.

and 35 ml of n-C₄H₉OH) and 3.6 g of VII was left at 20° for 2 hours and at 80° for 4 hours, boiled 3 hours, washed with water, the aqueous layer was extracted with ether and the combined butanol and ether extracts were distilled down, 2 g of VIII, melting point 107 to 108° (from 25% aq alcohol) was obtained; iodomethylete, melting point 108-110° (from alcohol-ether). See RZhKhim, 1955, 21207 for report II.

Card 7/7

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26840.

125 - 126° (from alcohol). The alcohol solution was azeotropically distilled off with C₆H₆ in 3 hours' time from the mixture of C₂H₅ONa solution (of 3.4 g of Na and 75 ml of absolute alcohol) and 16.1 g of 2-methylmercaptoethylmercaptane, condensed down to 75 ml, 29 g of X was added, and 12 hours later the mixture was boiled 2 hours and decomposed with 75 ml of water, IV was separated by distillation of the organic layer, yield 50%, boiling point 182 - 190°/1 mm, melting point 45 - 56°; iodomethylate contains 2 mols of IV per 1 mol of CH₃I, melting point 110° (from alcohol). The solution of 15 g of methylmercatide of sodium (XI) and 30 g of N-chloroacetyl-2,4-xyldine in 300 ml of alcohol

Card 4/7

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26840.

off (the temperature of the bath reached 130° in 6 hours), the residue was mixed with 50 ml of 2% aile CH_3COOH and extracted with C_6H_6 , I was received, yield 57%, melting point 90° (from alcohol). II, boiling point $143 - 155^{\circ}/0.2 \text{ mm}$, $164 - 166^{\circ}/0.5 \text{ mm}$, was received by boiling the solution of 28 g of n-butoxybenzoylchloride (boiling point $160 - 163^{\circ}/10 \text{ mm}$) and 12.3 g of IX in 50 ml of C_6H_6 2.5 hours, yield 89%; iodomethylate, melting point $93 - 94^{\circ}$; III was prepared similarly to II (1.5 hour boiling of chloranhydride of a metoxycinnamic acid (X) (boiling point $170 - 175^{\circ}/8 \text{ mm}$) with IX in (C_6H_6), yield 79%, boiling point $195 - 198^{\circ}/0.5 \text{ mm}$, $170 - 171^{\circ}/0.2 \text{ mm}$; iodomethylate, melting point

Card 3/7

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic
Chemistry.

E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26840.

N-(methylmercaptoacetyl)-2-methyl-5,6,7,8-tetrahydro-1-naphthylamine (VI); of the per-caine type - 2-methylmercaptoethylamides of 2-chlorocinchonine acid (VII) and 2-butoxycinchonine acid (VIII), as well as iodomethylates of I to VIII. Iodomethylate of II has the same activity as novocaine, the activity of iodomethylate of III is 20% of that of novocaine. The analogy of the physiological activity of sulfonium and ammonium salts extends also on the local anesthetics. Iodomethylate of VIII has no local anesthetic action. The mixture of 8.25 g of ethyl esters of n-aminobenzoic acid, 16 g of 2-methylmercaptoethanol (IX) and 0.05 g of Na was slowly heated with distilling

Card 2/7

~~HA~~ Hach, V.C.

CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26840.

Author : Protiva, Miroslav; Simák, Vladislav,
Hach, Vladimir, Exner, Otto.

Inst :
Title : Local Anesthetics. III. Sulfonium Salts.

Orig Pub: Chem listy, 1955, 49, No. 2, 222 - 226.

Abstract: With a view to compare the local anesthetic activity of analogous nitrous and sulfurous compounds, the following substances were produced: of the novocaine type - 2-methylmercaptoethyl esters of n-amine (I), n-butoxybenzoic (II), n-metoxycinnamic (III) and n-metoxythiocinnamic (IV) acids; of the xylocaine type - N-(methylmercaptoacetyl)-2,4-xylidine (V),

Card 1/7

BOROVICKA, Milos; HACH, Vladimir

Natural substances used as drugs; progress during 1954.
Cesk. farm. 4 no.9:478-488 Nov 55.

1. Z Vyzkumneho ustavu pro farmacii a biochemii v Praze.
(BIOLOGICAL PRODUCTS,
pharmacol., review)

HORAKOVA, Zdena; HACH, Vladimir

Biological evaluation of the new local anesthetics derived from
xylocaine. Cesk. farm. 4 no.5:234-240 June 55.

1. Z Vyzkumneho ustavu pro farmacii a biochemii, Praha.
(ANESTHETICS, LOCAL
xylocaine deriv., biol. evaluation)

HACH, Vladimir

Progress of drug production in 1953. Cesk. farm. 4 no.1:36-50
Jan 55.

(DRUG INDUSTRY,
progr.)

HACH, V.

6-Fluorothymol. V. Hach (V. Hachovy, Prague, Czechoslovakia). *Chem. Zvesti* 48, 1707-8 (1954). 6-Acetamidothymol, m. 172-4° (108 g.) heated with 11.5 g. Na in 400 ml. EtOH and 100 g. MeI 6 hrs. on the steam bath gave 89 g. 6-acetamidothymyl Me ether (I), m. 138-5° (from EtOH). Refluxing 122 g. 14 hrs. with 1 l. 30% H₂SO₄ and alkalizing the soln. gave, by C₆H₆ extr., 100 g. 6-aminothymyl Me ether (II), b.p. 145-60°. II (22.8 g.) in 60 ml. 85% HBr and 60 ml. H₂O with 17.3 g. NaNO₂ in 85 ml. H₂O below 5° gave 25 g. 3-methoxy-6-bicycmenediazonium fluoroborate (III). Descomp. 24 g. III by heating, finally at 180°, yielded 10 g. 6-fluorothymyl Me ether (IV), b.p. 101-4°, b.p. 95-7°. Refluxing 10 g. IV 30 hrs. with 100 ml. 55% HI gave 6.2 g. 6-fluorothymol (V), b.p. 95-7°, m. 53° (from petr. ether). 6-Fluorothymylacetic acid m. 125° (from EtOH). Ultraviolet spectra of thymol, thymyl methyl ether, IV, and V are given. All m.p.s. are cor.

M. Hudlické

Hach, Vladimir

Local anesthetics. II. Further analogs of Xylocaine. Vladimir Hach (Farm. biochem. výzkumný ústav, Prague, Czechoslovakia). Listy 47, 1486-50 (1953); cf. C.A. 49, 2044. Chloroacetylation of aromatic amines and the reaction of the N-chloroacetamides, analogs of Xylocaine. All of the new derivs. have anesthetic activity of the same order as Xylocaine. Reduction of α -naphthylamine with Na in AcOH yielded 80% 1-amino-5,6,7,8-tetrahydronaphthalene (I), b.p. 150-5°. A mixt. (200 g.) of I and 2-nitro-5,6,7,8-tetrahydronaphthalene obtained by the nitration of Tetralin, reduced with NaSH (from H₂S and 150 g. Na₂S·9 H₂O in 350 ml. H₂O) gave crude 2-amino-5,6,7,8-tetrahydronaphthalene (II), purified through its Bz deriv., m. 166-7°, hydrolysis of which gave pure II. 2-Methylnaphthalene (200 g.) gave 75 g. 1-nitro-2-methylnaphthalene, m. 78-80°, which was hydrogenated over Raney Ni to 63 g. 1-amino-2-methylnaphthalene, reduced with Na to 41 g. 1-amino-2-methyl-5,6,7,8-tetrahydronaphthalene (III). The Beckmann rearrangement of 7 g. 8-acetylindane oxime, m. 114°, by heating 10 min. at 120-30° with 85 ml. 85% H₃PO₄ and 130 g. P₂O₅ yielded 6 g. (85%) 5-acetamidindane, m. 102-4°, which (11 g.) was hydrolyzed with alc. NaOH to 6 g. 5-aminindane (IV), m. 35-7°. b.p. 120-30°.

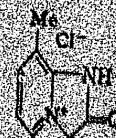
Mixing amines I-IV in AcOH with 10% excess ClCH₂COCl 1 min., pouring the mixt. into NaOAc soln., filtering, washing, and crystg. from EtOH yielded: 91% 1-chloroacetamidindane, m. 155°, 85% 2-chloroacetamidindane, m. 170-2°, and 90% 5-chloroacetamidindane, m. 119°. Heating the corresponding chloroacetyl derivs. 5 hrs. with 3 moles Et₃NH in C₆H₆, filtering off the Et₃NH·HCl, evapg. the filtrate, dissolving the residue in dil. HCl (1:5), extg. the soln. with Et₂O, alkalizing the aq. layer with Na₂CO₃ and extg. the mixt. with C₆H₆ yielded: 80% 1-diethylaminindane, m. 155°, 75% 2-diethylaminindane, m. 190-5°, 45% 1-diethylaminoacetamidindane, b.p. 185-90°, 45% 5-diethylaminoacetamidindane, b.p. 188-92°, picrate, m. 213-14°.

M. Hudlický

HAC4 Volume 1

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alkalized with Na_2CO_3 , m.p. $2.3-4^\circ$ (from Et_2O); 2-*amino-3-methylpyridine* (IX) m. $122-4^\circ$ (from petr. ether). An analogous prep. yielded 40% of the HCl salt of 2,4-diaminopyridine (X), m. $102-3^\circ$ (from Et_2O); 2,4-diaminopyridine (X), m. $102-3^\circ$ (from Et_2O). From the reaction of 40 g. 2-amino-3-pyridine with 48 g. HCl was obtained 46 g. (probable) Xs, m. 105° (from Et_2O). Refluxing the ClCH_2CO deriv. 4 g. with 23 g.



Phos II in 500 ml. C_2H_5 , filtering off the HCl salt of II, and distg. the filtrate *in vacuo* gave $\text{Et}_2\text{NCH}_2\text{CO}$ compd. derived from III-X (the starting ClCH_2CO deriv., n.p. and b.p. given; III, b.p. $143-7^\circ$, 137.0° ; IV, $145-7^\circ$; VII, $117-18^\circ$; VIII, $117-7^\circ$; IX, $136-138^\circ$ (4-HCl salt) $191-3^\circ$; X, b.p. $158-63^\circ$; 2,2-Dialkylaminoacetamido)- β -picoline base (100-110-120), Compds. derived from IV and VII showed higher surface anesthesia than Xylocaine. M. Hudlicky

Vladimir Hach

aq. layer alkalized with NaOH, the oil extrd. with ether, and the ext. dried. In vacuo gave 25 g. (87%) 2-phenyl-4-di-
 ethylaminoethyl-1,3-dithiolane, b. 155-60°. The cleavage
 of the dithiolane ring was carried out with HgCl₂ in the
 presence of CaCO₃. To 22 g. IV in 250 ml. EtOH was
 added 20 g. CaCO₃ and, during 3 hrs., a soln. of 22 g. HgCl₂
 in 100 ml. EtOH, the mixt. stirred 3 hrs. at 60-65°, filtered,
 and the mercaptide (24 g.) washed with 500 ml. hot EtOH.
 The mercaptide was shaken 6 hrs. with 250 ml. MeOH acid.
 with H₂S at -10°, the HgS removed, the filtrate evapd. in a
 14 atm. to 100 ml., poured into water, treated with NaHCO₃
 and extrd. with CCl₄; the residue after the evapn. of CCl₄
 gave 8.0 g. (94.5%) HSCH₂CH(EH)CH₂OH, b.p. 110-115°
 at 10-12 mm. Similarly, 20 g. II in 500 ml. EtOH and 40 g.
 CaCO₃, treated during 2 hrs. with 40 g. HgCl₂ in 500 ml.
 EtOH, gave 6.5 g. (34%) p-MeC₆H₄OCH₂CH(EH)CH₂SH,
 b.p. 125-40° (b.p. 125-7°, 23%). From 12 g. III in 100 ml.
 EtOH, 17 g. HgCl₂ and 11 g. CaCO₃ were used, the
 mercaptide which gave 8 g. noncryst. solid, b.p. 110-115°
 at 10-12 mm. (from EtOH).

KACH VLADIMIR
C Z E C H

112

2,3-Dimercaptopropyl derivatives. Vladimír Kač (23-311983).—A method has been worked out for prep. derivs. of 2,3-HS(CH₂)CH(SH)CH₂OH by treating 2-phenyl-4-chloromethyl-1,3-dithiolane (I) with HO, HOAc, and H₂N compds., transforming the products into mercaptides of the corresponding MeCH(OH)CH₂SH derivs., and liberating the latter with H₂S. Contrary to the reaction of 2-phenyl-4-bromomethyl-1,3-dithiolane, no splitting off of hydrogen halide was observed during the reactions in alk. medium. I (88.8 g.) in 100 ml. EtOH added, at 60° to 10.8 g. 2-Me-C₆H₄OH and 4 g. NaOH in 10 ml. H₂O and 180 ml. EtOH, and the mixt. refluxed 6 hrs., filtered, and evapd. to 0.28 vol. gave 20 g. (86%) 2-phenyl-4-(p-toluenesulfonylmethyl)-1,3-dithiolane (II), m. 94-5° (from EtOH). I (84.8 g.) in 80 ml. C₆H₆ added to 3.5 g. Na in 200 ml. EtOH and 25 g. 2-HOC₆H₄CO₂H, the mixt. let stand 3 hrs., refluxed 10 hrs. on the steam bath, filtered, evapd. *in vacuo*, the crude ester saponified by heating 12 hrs. with a soln. of 30 g. NaOH in 300 ml. 60% EtOH, the soln. filtered with activated C, acidified with HCl to pH 3, and the acid filtered and crystd. from AcOH yielded 16 g. (83%) 2-phenyl-4-(p-carboxyphenoxymethyl)-1,3-dithiolane (III), m. 162-4°. A mixt. obtained by adding a soln. of 8 g. Na and 12.5 g. 8-hydroxypyridine in 100 ml. EtOH to 80 g. I in 350 ml. EtOH stirred 100 min. at 34° heated 6 hrs. on the steam bath, filtered, evapd. *in vacuo*, the residue dissolved in HCl 1:4, and the soln. extd. with C₆H₆, the aq. layer alkalized with NaOH and extd.

with ether, gave, after evapn., 13 g. nondistillable oil, cryng. below 0°, 2-phenyl-4-(3-pyridylsuxymethyl)-1,3-dithiolane; plates, m. 109-0° (from EtOH). I (83 g.) in 180 ml. Me₂CO added during 30 min. to 14.9 g. 2-HOC₆H₄NO₂ and 18 g. anhyd. K₂CO₃ in 200 ml. Me₂CO, the mixt. heated on the steam bath 10 hrs., poured into H₂O, the Me₂CO dild. *in vacuo*, the soln. extd. with C₆H₆, and the ext. evapd. gave 92 g. 2-phenyl-4-(p-nitrophenoxymethyl)-1,3-dithiolane, m. 135-7° (from EtOH). To 0.83 g. Na in 20 ml. EtOH and 1.5 g. 2-HOC₆H₄NHAc in 15 ml. EtOH was added 2.3 g. I in 15 ml. EtOH and 18 ml. C₆H₆, the mixt. heated 4 hrs. on the steam bath, filtered, and the filtrate evapd. to give 2 g. 2-phenyl-4-(p-acetamidophenoxymethyl)-1,3-dithiolane, m. 150-2° (from EtOH). 2-Phenyl-4-hydroxymethyl-1,3-dithiolane (IV) (6 g.) heated 30 min. with 6 g. p-ClNC₆H₄COCl in 35 ml. C₆H₆ on the steam bath gave, after pouring into H₂O and neutralizing with NaHCO₃, 0.2 g. 2-phenyl-4-(p-chlorobenzoyloxymethyl)-1,3-dithiolane, m. 88-9° (from aq. EtOH). To 52 g. IV in 300 ml. C₆H₆ was added 10 g. powd. NaNH₂, and, at 60°, in 4 portions, 34 g. ClCH₂CH₂NEt₃, the mixt. heated 18 hrs. on the steam bath, then dild. with H₂O, the aq. layer sepd., the C₆H₆ layer evapd. *in vacuo*, the residue dissolved in 150 ml. concd. HCl, the impurities extd. with C₆H₆, and the aq. layer allowed to crystallize (24 hrs.) to give 55 g. (63%) 2-phenyl-4-(2-diethylaminoethoxymethyl)-1,3-dithiolane, m. 167° (from EtOH). I (60 g.) and 180 ml. Et₃NH heated in an autoclave 18 hrs. at 102°, the mixt. dissolved in dil. HCl, extd. with C₆H₆, the

Hech, V

COMPLETED

The relation between structure and activity of local anesthetic of ethylaminoanilide type V. Hech (Research Inst. Pharm. Moscow, U.S.S.R.)
 1. Introduction. On the basis of the rep. conf. of primary amides and ethylaminoanilide the dependence of their lipophilicity on the local anesthetic activity of their diethylaminoanilide is shown. A similar dependence was found in an analogical series of aminoquinoline deriva.
 Logically theory of the activity of these substances is discussed.
 D. H. H. H. H.

HACH, V.

CA

60

compn.).

Two new allylpyrimidines. Vladimir Hach (Pharm. Biochem. Research Inst., Prague, Czech.). *Chem. Listy* 45, 436 (1951). — *Et o-allylacetate* (I) (17 g.) and 10.8 g. guanidine sulfate in 120 ml. EtOH were treated with 4 g. NaOH in 40 ml. H₂O, the mixt. was heated after heating 8 hrs. on a steam bath, the EtOH was distd. off *in vacuo*, the residue extd. with EtOH, the ext. evapd., and the residue recrystd. from 80% EtOH, giving 10 g. (80%) 2-amino-4-methyl-6-hydroxy-5-allylpyrimidine, m. 206-7°. I (42 g.) and 23.5 g. MeC(=NH)NH₂·HCl in 250 ml. EtOH were treated with 10 g. NaOH in 80 ml. H₂O at 80°, the mixt. was then heated 8 hrs. on a steam bath, evapd. to dryness *in vacuo*, and the residue extd. with 200 ml. hot EtOH, giving 44% 2,4-di-allyl-6-hydroxy-5-allylpyrimidine, m. 151-2° (from C₆H₆).

M. Hudlický

HACH, V.

Anticoagulant Substances. VIII, Nitrogen Analogs of Dicoumarol and Pelentan. K. Fucik, Z. Prochazka, V. Hoch, and J. Strof (United Pharmacy Works, Prague, Czech.). Chem. Listy 45, 23-5 (1951); cf. C.A. 45, 6680c; 9726e. -

CH_2O with 4-hydroxycarbostyryl (I) give 3,3'-methylenebis-(4-hydroxycarbostyryl) (II). I and OHCCO_2H (IV) give bis(4-hydroxy-3-carbostyryl)acetic acid (III). (IV and 2,4-dihydroxynaphthyridine (V) yielded 3,3'-methylenebis(2,4-dihydroxynaphthyridine) (VI). Prepn. of II: 25 g. I in 750 ml. boiling HCl dild. 2:3 was filtered with Norit and the filtrate treated with 100 ml. 38% soln. of CH_2O ; the yellowish product (21.5 g.), crystd. from PhCH_2OH , does not melt below 400° . The condensation may be carried out in PhCH_2OH , EtOH, or AcOH with CH_2O or paraformaldehyde. I (17 g.) in 255 ml. boiling HCl dild. 2:3 was treated with 40 ml. 11% aq. soln. of IV and boiled 7 hrs., giving 15 g. of a reddish product, m. above 400° (from $\text{C}_6\text{H}_5\text{N}$). III refluxed with excess alc. satd. with HCl gave Me, Et, and Pr esters, m. above 400° . III and CH_2N_2 in Et_2O gave a compd. m. 240° (from Me_2CO), contg. 3 MeO groups. V (4 g.) in 400 ml. dild. HCl boiled 1 hr. with 25 ml. 38% CH_2O gave VI.

M. Hudlicky

HACAR, B.

"Contribution to the determination of temperature decrease on edges of disk of covered double stars." p. 111.

OLMOUC, CZECHOSLOVAK REPUBLIC. VYSOKA SKOLA PEDAGOGICKA. SBORNIK. PRIRODNI VEDY.
Olomouc, Czechoslovakia, No. 3, 1957.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, August, 1959.
Uncl.

HACAR, B.

Academician Frantisek Klokner has completed his eighty-fifth year.

p. 506 (Inzenyrske Stavby) Vol. 5, no. 10, Oct. 1957, Praha, Czechoslovakia

SC: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

1960, 1.

"The Russian Revolution (1917-1918) in the Soviet Union." Library of Congress, 1960, 1961, 1962.

50: Monthly List of East European Accessions, Vol. 3, No. 3, Library of Congress, March 1964, Uncl.

COUNTRY : Czechoslovakia
 CONTINENT :
 5-12
 ADL. JOUR. : Rozum., No. 21 1959, No. 75316
 AUTHOR : Macek, K., Hachperkova, J., and Kalina, K.
 JOUR. : Not given
 TITLE : The Use of Paper Chromatography in the Control of the Synthesis of Pyridoxine
 ORIG. REF. : Ceskoslov Farmac, 7, No 7, 400-402 (1958)

ABSTRACT : A chromatographic method has been developed for the determination of the substances formed in the synthesis of pyridoxine by the method of Harris and Folkers (JACS, 61, 1245 (1939)). The new procedure makes it possible to determine with sufficient accuracy the degree of purity of the individual products, the amount of side products formed, or the concentration of starting materials.
 From authors' summary

TAAD: 1/1

ILLEGIBLE

HACAPERKOVÁ, J.

✓ Paper electrophoresis of some pituitary hormones. K. Macek, M. Quisnerová, and J. Hacaperková (Výzkumný Ústav Farm. Biochem., Prague, Czech.). *Chem. Listy* 48, 837-9(1954).—Paper electrophoresis is a suitable method for following the sepn. of pituitary hormones, for their characterization, and for detg. the degree of purity.

M. Hudlický

HACAFERKA, Fr.

~~VAKUS (RDP86-00513R000617800045-6)~~
Effectiveness of the money order control mechanization. Cs
spoje 8 no.3:20-21 Je '63.

1. Reditel VAKUS.

HACAFERKA, Fr.

Effectiveness of the money order control mechanization. Cs
spoje 8 no.3:20-21 Je '63.

1. Reditel VAKUS.

HAC, B.

Polish-German geological seminary in Breslau. *Prace geol* 13 no.2:
86-87 F '65.

HAC, Aleksander

KOSTRZEWSKI, Jan; GRUZEWSKI, Aleksander; HAC, Aleksander

Typhus abdominalis and its relation to age, sex, environment and seasons during 1946-50. Przegl. epidem., Warsz. 8 no.4:247-264 1954.

1. Z Działu Epidemiologii Państwowego Zakładu Higieny.
(TYPHOID FEVER, statistics,
in Poland, age, environmental, sex & seasonal factors)

FUG/2-59-4-10/16

Hollow Glass Industry in the Federal People's Republic of Yugoslavia
and the Export of Its Products.

and does not conform with the requirements of foreign markets. The main producers of pressed glass are the plants in Hrastnik, Paraćin and Skopje. Domestic requirements for glass bottles for alcoholic and non-alcoholic drinks are fully met by the domestic industry. The main foreign buyer is Italy and although demand has been increased the domestic industry is not able to cope with the Italian export orders since the production capacity of the two plants producing this type of goods, i.e. the plants in Paraćin and Rogatec, is limited. It is hoped that with the completion of some plants, the construction of which is still in progress, this situation will be improved.

Card 3/3

YUG-100-4-10/10

Hollow Glass Industry in the Federal People's Republic of Yugoslavia
and the Export of Its Products.

Tvornica stakla (Glass Plant) "Kristal" in Samobor, and Tvornica stakla (Glass Plant) "Straža" in Rogatec. Three types of glass products are exported, a) blown glass products, b) pressed glass products and c) glass bottles. Hollow blown glass is the main export item which is exported to USA, Great Britain, West Germany and some other European countries. In view of the foreign demand for this item an increase in export is envisaged but this increase is dependent on a detailed study of the export market and better organization of export production. The export of pressed glass products, such as ashtrays, vases and glasses, is connected with certain difficulties, i.e. packing and transportation. Yugoslavia does not have suitable packing material, such as reinforced cardboard, and the use of wooden cases involves higher transportation costs.

Card 2/3

15(2)

YUG/2-59-4-10/16

AUTHOR: Habuš, Milivoj

TITLE: Hollow Glass Industry in the Federal People's Republic of Yugoslavia and the Export of Its Products (Industrija šupljeg stakla FNRJ i izvoz njenih proizvoda)

PERIODICAL: Kemija u industriji, 1959, Nr 4, pp 101-103 (YUG)

ABSTRACT: The author reviews the development of the domestic glass industry since the War with particular reference to export. The domestic glass industry satisfies most of the demands of the population and only special types of technical glass, not produced by domestic plants, are imported. The main glass producers and exporters of glass products are Steklarna (Glass Plant) "Boris Kidrič" in Rogaska Slatina, Steklarna (Glass Plant) "Hrastnik" in Hrastnik, Srpska fabrika stakla (Serbian Glass Plant) in Paracin, Fabrika za staklo i staklena volna (Glass and Glass Wool Plant) in Skopje,

Card 1/3

HABUS, M. ; PJTTER, H.

The Yugoslavia glass industry today. p. 218.
(Kemija u industriji, Vol. 5, No. 9, Sept. 1956, Zagreb, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

HABUR, B.

Decline in the activities of U.S.A. merchant marine. Mor.
flot 21 no.2:41-42 F '61. (MIRA 14:6)

1. Zamestitel' direktora Tsentral'nogo nauchno-issledovatel'skogo
institut morskogo flota.
(United States--Merchant marine)

HABUDA, Zsigmond, okleveles gepeszmernok, tanarseged

Accidents caused by motor vehicle brake failures. Jarmu mezo
gep 9 no.10:374-377 0 '62.

1. Muszaki Egyetem.

HABUDA, Zsigmond, ~~eg~~retemi tanarseged

Brake defects.Ft.3. Auto motor 14 no.10:26 My '61.

HABUDA, Zsigmond, egyetemi tanarseged

Brake defects. Pt. 2. (To be contd.) Auto Motor 14 no. 9:26 My'61.

HABUDA, ZSIGMOND, egyetemi tanarseged

Brake defets. Pt. 1. (To be contd.) Auto motor 14 no. 8:12 Ap'61.

HABUDA, Zsigmond, muszaki egyetemi tanarseged

Accidents occurring in intersections. Auto motor 14 no.2:26 Ja '61.

HABUDA, T.

Conditions of the introduction of intrafactory accounting in the cement industry. p. 22.

CEMENT, WAFNO, GIPS. (Wydawnictwo "Budownictwo i Architektura") Krakow, Poland. Vol. 13, no. 1, Jan. 1957.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959
uncla.